Aristaloe aristata: a unique, monotypic species

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Aristaloe aristata is a commonly grown and very rewarding species. Its history, relationships, habitat and cultivation are described and discussed. It has also been used as a parent in the production of a number of hybrids and cultivars.

History and relationships

This species was first collected by James Bowie and named as *Aloe aristata* Haw. (Haworth, 1825). It was briefly described as follows (translated from the Latin): leaves lorate–acuminate, slender, numerous, long and finely aristate (awn-bearing). The key feature here is the **aristate** leaves, discussed further below. Haworth placed his new species in his new Section *Macrofoliae* (large-leaved), even though the leaves of this species are relatively small for an *Aloe*!

The plant has become popular and common in cultivation and acquired a few synonyms along the way, notably *Aloe longiaristata* (Reynolds, 1950). However, as a consequence of its very distinct features its taxonomy has been relatively uncontroversial. Its unique nature was recognised later by Berger who included it as the only species in his Series *Aristatae* (Berger, 1908), together with several hybrids, of which more later. His series was later raised in status to become Section *Aristatae* (Glen & Hardy, 2000).

Most recently several molecular studies involving gene sequence comparsions (phylogenomics) have shown that this species is unique as it sits in its own branch (clade) in the *Aloe* or alooid family tree. However, Rowley (2013a) placed this species in *Tulista* (*Haworthia* subgenus *Robustipedunculatae*) along with *Aloe* (*Gonialoe*) *variegata* and *Astroloba*. This merging of clades has not been generally accepted. Finally, Manning *et al.* (2014) recognised the uniqueness of this species by describing the genus *Aristaloe* Boatwr. & J.C. Manning with *Aristaloe aristata* (Haw.) Boatwr. & J.C. Manning as the sole and type species, hence this genus is monotypic. From a molecular perspective it is indeed closest to *Tulista, Gonialoe* and *Astroloba* rather than the true aloes. However, its red bird-pollinated flower is very typically that of an *Aloe* rather than *Tulista* or *Astroloba* which are generally creamy-white, striped and insect pollinated.

Carter *et al.* (2011) concluded that this species "does not have any obvious relatives. It has always been placed on its own in taxonomic arrangements. Superficial similarities in habit shared with *A. haworthioides* and *A. florenceae*, both from the highlands of Madagascar, do not seem to indicate any evolutionary or other affinities".

Aristaloe aristata in habitat

This species has a widespread distribution in southern Africa ranging from the east of Western Cape Province, south Northern Cape, through the Eastern Cape, Orange Free State, Lesotho and into south-western KwaZulu-Natal. It "occurs in a wide variety of habitats, including sandy soil in hot, dry karoo areas, deep shade on humus-rich soil in riverine forest and grassland on high mountains in Lesotho" (Glen & Hardy, 2000). "Its altitudinal range varies between 200 and 2,200 m" where significantly "it occurs naturally in some of the coldest parts of southern Africa" (van Wyk & Smith, 2014).

I have not yet seen this species growing in habitat, but Alice Vanden Bon has and three of her photos are included here (figs 1–3). The location of these is east of Sutherland in the Northern Cape Province, South Africa, at the western end of its distribution. At this locality the vegetation type is Roggeveld Shale Renosterveld in the Fynbos biome.

Fig 1. *Aristaloe aristata* in habitat. Photo: Alice Vanden Bon

Fig 2. *Aristaloe aristata* in habitat after flowering. Photo: Alice Vanden Bon

As a consequence of its widespread distribution the conservation status of this species is Not Threatened (NT) (van Wyk & Smith, 2014).

Fig 3. *Aristaloe aristata* in habitat after flowering. Photo: Alice Vanden Bon

Aristaloe aristata in cultivation

This species is one of the very easiest of the alooids to grow and presents few problems in cultivation. My largest clump had been badly neglected over the last few years but has been repotted this year (2021). I kept a clump about 23 cm in diameter (fig 4) after having removed a few rosettes. The clump and individual rosettes have rewarded me by producing several flower spikes.

The plant is unusual for an *Aloe* and indeed is easily mistaken for an haworthiad. It is stemless and in habitat forms dense clumps of up to a dozen rosettes. In cultivation it is generally more proliferous and branches to form even larger clumps (fig 4). Individual rosettes are up to 15 cm across composed of a large number of narrowly-triangular leaves that taper into long dry awns. These are its most distinctive feature from which both the generic and specific names are derived. Leaf surfaces are dark green and prominently adorned with white tubercles. Leaf margins bear small soft white teeth. The rosettes are either tight with incurved leaves or more open with recurved leaves depending on

Fig 4. Large clump of *A. aristata* in a 27 cm diameter pan.

growing conditions and the amount of water they receive. They are certainly more attractive when grown somewhat hard which results in tight dense rosettes.

My plants have produced simple, unbranched inflorescences up to 40 cm tall (figs 5 & 6), but in habitat these can branch with up to six branches and can grow up to 70 cm tall (fig 2 & 3). The raceme is loosely arranged (fig 6) bearing 20–30 flowers. The pedicels are up to 2.5 cm long and are held roughly horizontally when the flower opens but become upturned as the flowers fade and die. Each open flower hangs vertically, is slightly curved downwards (decurved) and up to 4 cm long, slightly swollen at the base above the ovary, dull red or coral pink and striped. An unusual feature of the flower of this species is that it is darker above where it receives direct sunlight in contrast to the paler colour below on the shaded underside.

No doubt as a consequence of the fact that this species naturally occurs in some of the coldest parts of southern Africa, *A. aristata* is very cold hardy. It is reported to survive and thrive outdoors in gardens and rockeries in southern England (Rowley, 2013b) but it does require some protection in areas with heavy rainfall. I regret to report that so far I have tried and failed to overwinter it outdoors in a very well drained rockery in central Scotland. However, I remain undaunted and will try again with some form of protection from the heavy Scottish rain!

Hybrids and cultivars

Unsurprisingly for such a distinctive species it has been used as a parent in the production of hybrids, most of which we would now consider to be intergeneric crosses. Some of these have involved *Gasteria* species, 19 of which are listed

Fig 5. *Aristaloe aristata* flowering in a 14 cm diameter pan.

Fig 6. Close up of the inflorescence of *A. aristata*.

Fig 7. *Aristaloe* 'Tegelberg's Triumph' in a 14 cm diameter pan.

by Rowley (2013b: as ×*Gastulista*), which would now be considered to be *Aristaloe* × *Gasteria*.

One cultivar is included here as *Aristaloe* 'Tegelberg's Triumph' (fig 7). I have been unable to source data on the parentage of this plant: it may be merely a selection of *A. aristata* or possibly an intergeneric hybrid. Whatever its origin it is a very handsome plant with extremely prominent leaf tubercles. I have only grown this plant for a relatively short time so have yet to see it reach its full potential.

Common names and native uses

Grace *et al.* (2011) list 14 common names for this species, six from Sotho including *serelei* which means 'slippery one' (Reynolds, 1950).

Reynolds (1950) records two native uses for the plant. The first, which he considered to be "not far from witchcraft" involved placing "an unrooted plant … on a shelf in the hut of a barren woman; if it flowers under these conditions she will become pregnant, but will remain barren if it withers". Also, in East Griqualand, juice extract mixed with water is sometimes used as a body wash.

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